

ABSTRACT

A microporous material comprises organic macromolecules comprised of first generally planar species connected by rigid linkers having a point of contortion such that two adjacent first planar species connected by the linker are held in non-coplanar orientation, subject to the proviso that the first species are other than porphyrinic macrocycles. Materials in accordance with the invention have a surface area of at least $300\text{m}^2\text{ g}^{-1}$, eg in the range $700\text{-}1500\text{ m}^2\text{ g}^{-1}$. Preferred points of contortion are spiro groups, bridged ring moieties and sterically congested single covalent bonds around which there is restricted rotation.